# WORK AT KALENDERHANE CAMII IN ISTANBUL: FIFTH PRELIMINARY REPORT (1970–74)

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FOUR seasons of investigation and restoration were carried out at Kalenderhane Camii in Istanbul during the summers 1970–74.[1] By the end of the 1969 season, the site had to a large extent been laid free[2] and, while limited excavation continued, the emphasis of work was shifted to the study and recording of findings for the final publication, and to the restoration of the building. Restoration work continued as well on the mosaics and frescoes. The present report summarizes this work and includes preliminary reports on excavated carved stone decoration, ceramics, and coins.

## EXCAVATION

Further understanding of the structural and occupation history of the site was gained by excavation in five areas, treated here in approximate chronological order of most distinctive structures.

### *Early Byzantine Basilica*

Full investigation of the apsed building lying between the existing building and the Valens Aqueduct had been hampered by the presence of a vaulted Ottoman structure above its apse. While the unencumbered western longitudinal extension of the apsed building and upper courses of its apse could be exposed,[3] the footings of the overlying Ottoman structure were only partially carried by the rising wall of the apse. Elsewhere they rested on earth and rubble fill. Further excavation of the apse and conservation of the Ottoman structure required providing a new foundation for the Ottoman structure.

This was accomplished by a complicated procedure which occupied most of the 1972 season. The eastern half of the apse was excavated down to a secondary floor. On this was erected a temporary shoring supporting the Ottoman structure above. The remainder of the apse was excavated, and its rising wall rebuilt up to the foundation level of the Ottoman structure. The rebuilt wall provided partial support for longitudinal I-beams which were inserted to form footings for the Ottoman structure, and upon which, after removal of shoring, could be laid a permanent ferroconcrete floor.

The excavation of the apse revealed features that left no doubt that the building of which it was a part was originally built as a church (figs. A and 1). The flanks of the apse were opened by two doors, one to the south now communicating with the prothesis of the later church, and another to the north. Since the north flank of the apse was built directly against the Valens Aqueduct, passage through the north door was made pos-

[1] The work continued to be sponsored jointly by Dumbarton Oaks and the Istanbul Technical University under the direction of the co-authors representing these two institutions respectively.

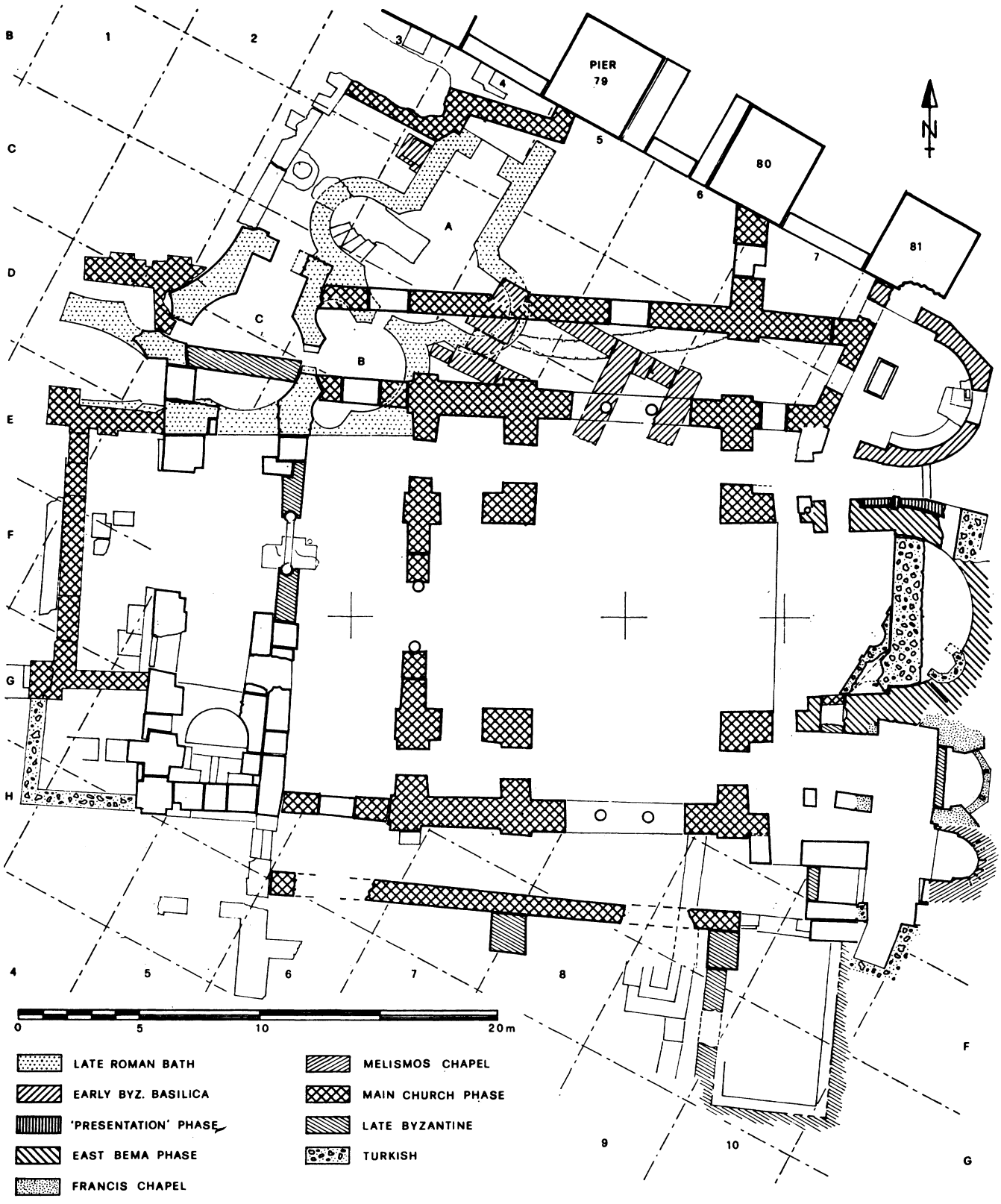
We should like to express our continued thanks to the General Directorate of Vakıflar, to the Department of Antiquities, and to the Istanbul Archaeological Museum, in particular to Mr. Necati Dolunay, Director, and Dr. Nezih Fıratlı, Curator. Dr. John Hayes continued to give generously of his time and advice on pottery questions.

Our staff for the seasons indicated included: site supervisors: O. Bıçakçı (1970–71), S. Batur (1972 and 1974), F. Kuğu (1973); architects: K. Kuzucular (1970–72), A. Erol (1970–72), R. Larimer (1974); architectural draftsmen: H. Bozkurt (1970), Z. Bulgurcu (1974); pottery specialists: A. Sabuncu (1970–74), J. Herrin (1973–74); pottery assistants: G. Başağa (1970–73), Y. Toker (1970–71); numismatist: M. Hendy (1972–74); archaeologists: H. Schaefer (1970), S. Şişmanoğlu (1970–73), P. Zorides (1970), M. Kuban (1974); technical draftsmen: Y. Gürocak (1972–74), N. Baturalp (1973); cataloger: U. Striker (1970); photographer: E. Emiroğlu (1970–71).

Ernest J. W. Hawkins continued as consultant for the restoration of mosaics and frescoes.

[2] See our four earlier reports in *DOP*, 21 (1967), 267–71; 22 (1968), 185–93; 25 (1971), 251–53 and 253–58; referred to here respectively as First Report, Second Report, etc.

[3] Cf. Fourth Report, 255, and figs. A and 10.




A. Istanbul, Kalenderhane Camii. Plan of Buildung and Excavations (1972)

sible by trimming the southeast corner of Pier 81 of the aqueduct up to the height of the door. This was done at the time of the construction of the apse to give access to the interspace between Piers 81 and 82. Further excavation to determine where this led is impossible.

The center of the apse wall is opened by a single window, and below it, extending originally to returns in the apse flanks, was a single-step synthronon. Its north arm had been subsequently destroyed and its central element overbuilt in Turkish times; but the south arm is preserved intact. It consists of a simple bench of mortared rubble construction covered with a mortar slip. Doubt may be raised as to whether this was its original appearance, for although some evidence indicates the synthronon to be part of the original furniture of the apse, there is secure evidence that the apse walls were revetted throughout with marble. Perhaps the synthronon originally was similarly revetted.

Set into the floor of the apse between the doors is a rectangular marble slab of verde antico, marking the altar emplacement. The slab is decorated with a simple molded frame and shows the setting position at its corners for the altar legs. It is surrounded by a damaged frame and mosaic of *opus sectile* in simple geometric design with inset discs.

The excavation of the interior of the apse shed no new light on either its relation to the *Presentation* Mosaic phase or the question of how long the basilica of which it formed a part survived in its primary state; in particular whether it survived the construction of a new church to the south, of which the existing East Bema phase formed a part. The earliest date which can be established for suppression of the nave and aisle of the basilica is the construction of the late-twelfth-century Main Church phase.

At this time a straight wall was built connecting the northeast corner of the new phase with the aqueduct, thereby closing off the apse to the west. A door in this wall led from the apse into the north aisle of the new church. Within the apse a new mortar floor was laid covering the altar emplacement and its surrounding mosaic (fig. 1, "C"). The synthronon remained, and may at this time have been divested of marble.

Two further changes made within the apse indicate that it continued to stand in the Ottoman period. The center element of the synthronon was overbuilt with steps up to the level of the window sill (fig. 1, "D") transforming the window into a door. Thereafter, the entire interior floor level was raised about 70 cm. to sill height. The superstructure of the apse appears to have collapsed in the eighteenth century. The apse was filled with rubble, into which was subsequently sunk a well on the north side destroying the north arm of the synthronon (fig. 1, "A"). A drainage canal was laid on the south side cutting through the apse wall at the southeast and exiting through the twelfth-century door to the north aisle. On this was overlaid the Ottoman vaulted structure.

Excavation around the exterior and to the east of the apse was limited by a five-meter difference in grade level and by the fact that this zone impinged on private neighboring property. Nevertheless, the apse was completely freed down to its original ground level, and a permanent retaining wall was constructed perpendicular to the aqueduct, preserving accessibility to this area. The anomalous exterior plan of the apse is difficult to explain. While its southern half is circular, north of the window it continues as two segments of straight wall before it intersects the face of the aqueduct.

The certain identification of the basilica as a church raises questions about the irregular form of its plan, notably the absence of a north aisle in what otherwise would have been a regular basilical plan with nave and flanking side aisles. This seems to have been the result of limitations in the site on which the basilica was to be constructed. Within the limits of a preestablished total width for the basilica, the nave could be wider by sacrificing a north aisle.

A careful comparision of the position of the one surviving south nave pier (in B/5 of fig. A), together with the transverse elements of the south aisle foundations to the piers of the aqueduct, indicates that the piers of the basilica were placed to correspond to the piers of the aqueduct. It follows from this that the aqueduct piers probably formed the support system for the north nave wall of the basilica, a hypothesis strengthened by the presence

of a beam hole at the level of the support of the basilica roof in aqueduct Pier 80. The interspaces between the aqueduct piers also appear to have been incorporated into the interior of the basilica. The basilica seems to have been preceded by two narthexes, the south end of the exonarthex communicating with the surviving Room C of the Late Roman bath. The preservation of this room of the bath may have been a factor affecting the width of the basilica.

*Southern Interior of Exonarthex*

Excavation continued in the 1970 season in the central and southern bays of the interior of the exonarthex. In the central entrance bay, the Turkish stone steps, which had been built up to a height of 1.50 m. in three successive phases to compensate for the rising exterior grade level, were removed. Similarly, a secondary floor level lying approximately one meter above the original level, extending from the south flank of the steps to the southern extremity of the exonarthex interior, was removed and found to be Turkish.

As excavation in this area continued below the level of the original floor, a basin was discovered occupying the southernmost four meters of the exonarthex interior (figs. A and 2). The interior of the basin is semicircular in plan, its flat wall to the south. The surviving portion of the wall is constructed of brick in its lowest courses and rough, squared ashlar above. Its interior was revetted with marble, fragments of which survive, transforming its semicircular interior plan to a polygonal one. The basin drew its water through a duct in its north wall; and a pipe connected to the duct could be traced to the north the full length of the exonarthex and into Room C of the Late Roman bath. The basin was drained by a corresponding duct in its south wall.

The basin cannot be unambiguously associated with any of the major structural phases already identified on the site. While its masonry resembles that of the East Bema phase, its axis deviates from this phase. One piece of evidence suggests that the basin served a liturgical function, and may have been in use at the same time as the East Bema phase: a group of flasks, usually considered religious objects and dated to the seventh century, were found in the debris immediately above the floor of the basin.[4]

*West and Southwest Exterior*

In 1970, a strip approximately six meters wide was excavated immediately along the exterior of the exonarthex west façade. This was continued in 1971 around the southwest corner of the building to include the zone flanking the exonarthex to the south (fig. A). The extent of excavation was limited by the necessity to maintain access to the main entrance and to reserve working and storage space on the exterior. Throughout this zone the exterior grade lay at an approximately even level of 1.70 m. above interior ground level.

In D-E/2–3 a stem of wall belonging to the Late Roman bath was laid free; this continued to the west the projection of the south perimeter wall of the bath already exposed in the northern interior of the exonarthex. With a corresponding wall already exposed in D/1–2, it appears to have formed another irregularly shaped chamber or passage belonging to the bath which communicated with Room C of the bath through a door. The reveals of this door, subsequently immured and buried, were exposed in the lower portion of the façade of the exonarthex. This portion of the bath was subsequently overlaid and incorporated into the northern part of an extensive structure belonging to the Main Church phase.

Excavation in E-G/1–2 partially revealed foundations and walls of a broad porch preceding the entrance to the exonarthex and approximately centered on it. Stratigraphic evidence, and the close similarity in its masonry to that of the late twelfth-century Main Church, links it to this phase. The porch is rectangular in plan with strong projecting piers at its western corners, and measures on its exterior 11.70 m. in breadth by 4.20 in depth.

Further understanding of the western porch must await the disengagement of its western face; but the evidence presently available suggests that it may have been flanked to the north by a tower, whose northeastern corner was defined by the right-angle

[4] Cf. J. W. Hayes, "A Seventh-Century Pottery Group," *DOP*, 22 (1968), 212–14.

construction earlier exposed in C-D/1.[5] The masonry of this construction is identical to that of the porch, and it forms, with the north flank wall of the porch and a section of the exonarthex wall, three sides of a rectangular enclosure. The area immediately to the west of this enclosure remains to be excavated.

No structure appears to have flanked the porch to the south in the twelfth century. Preexisting foundations of indeterminate date underlie the porch and continue to the south of it where they give rise to piers, subsequently incorporated into the lower portion of the exonarthex west wall. The superstructure of this system was partially replaced in Ottoman times, thereby complicating its interpretation. In connection with a raising of the exterior ground level in the eighteenth century, the southwest exterior corner was enclosed in an L-shaped wall and the area tile paved.

Excavation to the south of the exonarthex in G-H/5–6 exposed remains of walls suggesting the presence of a chamber flanking the exonarthex to the south. This communicated to the east with the south aisle and to the south with buildings further out.

While the significance of these structures remains to be established, two noteworthy finds were recovered from this area. An apparent drain or refuse chute let into the far western corner of the exterior exonarthex south wall (G-5, southwest corner) yielded a large cache of late twelfth- early thirteenth-century black and green painted bowls,[6] raising the question whether one or several of these chambers served a culinary purpose shortly after their construction.

The structural changes in the exonarthex south wall are analogous to those in the adjoining west wall: the lower 1.50 m. of rising wall is Byzantine, and the remaining superstructure Ottoman, separated by a clear horizontal joint. At some time before the construction of the Ottoman superstructure, a door was broken through the Byzantine wall and furnished with two steps leading up into the exonarthex. The tread of the lower step consisted of a reused decorated marble relief, the most important piece of marble decoration as yet recovered from the site.[7]

*Southeast Exterior*

In the exterior zone to the south of the diaconicon, the grade level rises steeply to the east from approximately two meters to over five above interior floor level. This limited the extent to which excavation could be carried eastward. In F-G/9–10 (figs. A and 3) remains of a rectangular room were uncovered, lying in north-south axis and accessible by a door from the eastern end of the south aisle. The interior of the room measures $5 \times 7.50$ m. and is furnished with a bench running around its east, south, and west sides suggesting some assembly purpose. The room is secondary to the heavy reinforcing pier in F/9 and is thus presumed to be Palaeologan in date.

To the west of the room, a paving was uncovered at the same level, with a simple lozenge motif frame. This zone was seriously disturbed in the nineteenth century by the construction of a vaulted fire safe, and the clarification of structures in this area must await further excavation.

*Exonarthex Roof*

Cleaning of the narthex roofs in 1967 clarified to a great extent the original form of the esonarthex gallery,[8] but left problems of the exonarthex gallery unexplored. Soundings in 1969 on the exonarthex roof were followed by full excavation of this zone in 1970 (fig. 6).

Removal of the tile floor of the gallery, and excavation of the earth fill around the spandrel zone of the domical vault of the entrance bay, revealed the remains of a structural system earlier in date than the exonarthex gallery floor. While its date and significance remain to be established, it consists of a transverse wall lying to the west of and contiguous to the common wall of the two narthexes, but lower than the common wall. It carries in its primary phase two low brick dados, and to the south possibly the remains of a third. Column bases rest on the two surviving dados.

[5] S. Ćurčić first suggested this to us.
[6] Cf. this Report, p. 316 and fig. 17.4.
[7] Cf. this Report, p. 314f. and fig. 12.
[8] Cf. Second Report, 187–88 and figs. 6–8.

In a subsequent phase, foundations were built between the dados, possibly to carry responds belonging to a vaulting system over the exonarthex gallery.[9]

The removal of upper courses of masonry along the west wall of the exonarthex gallery exposed the remains of a pier separating two sets of paired column footings. Despite their irregular placement, this would appear to indicate that the façade of the exonarthex gallery was opened by two sets of triforae carried on columns and separated by a pier.

## STRUCTURAL RESTORATION AND OBSERVATIONS

Further disengagement of masonry from plaster, subsequent fills, and blocking revealed the building to be structurally sound. Its conservation and restoration was consequently confined, when necessary at all, to consolidation, repointing, and minor repair. More extensive restoration, involving in some cases replacement, was found to be necessary for the closure of doors, windows, and tribeloi; and for the interior marble revetment. By the end of the 1973 season, exterior work on the building was complete, and subsequent work, still in progress, continued in the interior alone.

### *Exonarthex and Upper West Façades*

The completion of excavation along the exonarthex façade and the removal of steps from the interior allowed restoration work to be undertaken here. The structural history of this façade is exceptionally complicated, and an effort was made to preserve its palimpsest character as far as was practically possible (fig. 4). The only major change was resetting the door 1.50 m. lower at original ground level and the replacement of rubble fill surrounding it within the arch with brick wall.

In the upper west façade the rubble blocking of the central triple arch and of its flanking doors was replaced by thin brick walls (figs. 4 and 6). The fenestration of the central arch was repeated, save for the oculus. The masonry above the central arch and in the zones flanking it was found to be loosely consolidated rubble; and these zones were rebuilt. The roof line of the western crossarm was changed from gabled to arcuated.

[9] Already visible in Second Report, fig. 8.

### *North and South Flank Walls*

While the conservation of the south flank wall was primarily cosmetic in nature, involving minor repair of broken arches, replacement of damaged masonry, and repointing, the north flank had suffered more serious damage to a number of its features, and the damaged zones had been walled over. The removal of blocking revealed sufficient evidence to allow reconstruction of these features.

A special problem was encountered in designing new closures for the tribeloi in the north and south crossarms. The loss of the north and south flanking aisles had transformed these from what originally had been interior passages into exterior faces. They had subsequently been blocked and partially buried.

So as to leave the tribeloi columns freestanding within the naos, while at the same time expressing their support function on the exterior, a reinforced concrete lattice screen of the same design as that of the windows was carried across the tribeloi directly outside the columns, resting on a dado. This was vertically divided by pilasters marking the position of the columns. Window casements were let into the screen from the interior (fig. 5).

### *Cupola, Vaults, and Roofs*

The exposure of the original masonry of the cupola provided secure evidence of its original form,[10] as well as the basis for its restoration (fig. 4). The windows were opened to their original height, the surrounds repaired, and the roof line restored. The extrados of the dome was consolidated with a concrete slip and given an outer covering of lead.

The remaining roof vaults were repaired, their extrados covered with concrete slip and overlaid with an asphalt preparation.

Two considerations governed the design of the narthex roof: as much as possible of the upper west façade should be left visible; and underlying features should be unobtrusively expressed. This was achieved by roofing separately the exo- and esonarthexes, respectively with pent roof and hip roof in transverse axis (fig. 7). By carrying the esonarthex

[10] Cf. Third Report, 252 and fig. 2.

roof slightly higher, the distinction between the two narthexes was kept and features of their common wall, visible only at gallery level, could be indicated on the exterior.

*Doors and Windows*

The oak door of the main entry was restored and reset in its new surround. New entrances from the exterior were provided respectively into the diaconicon and the apse of the Early Byzantine basilica, and were fitted with iron doors.

A total of forty-two new windows were provided for the building. These were individually cast of reinforced concrete in lattice design and glazed with semitransparent, wire reinforced glass. The refenestration of the building had a particularly salutary effect on its external appearance (e.g., fig. 5), since the setting of the new windows in original position within the reveal reestablished the plastic quality of the walls, an effect obscured by the flush windows on exterior and interior which preceded our restoration.

*Interior Marble Revetment*

A dominant feature of the interior architecture of the naos is its polychrome marble revetment, one of the fullest and most developed Byzantine systems surviving in Istanbul. Our study of the system indicates that less than one-third of the original twelfth-century system survives, mostly in the western bays. The remaining wall surfaces were covered either with secondary revetment or with painted plaster imitating marble. The plaster was so deteriorated that it had to be removed.

Despite this, since the original system was found to be organized according to mirror and bilateral symmetry both in design and marble color, it provided the necessary evidence for a theoretical reconstruction of most of the original naos system.

The restoration of those portions of the naos walls covered in their ultimate phase by plaster is being carried out in marble. It is designed to respect the original system, while at the same time preserving the significant secondary repairs and changes, distinguishing clearly between original and restoration, and maintaining the coherence of the interior as a whole.

MOSAICS AND FRESCOES: RESTORATION AND OBSERVATIONS

The conservation and restoration of mosaics and frescoes recovered in prior seasons continued under the supervision of Ernest J. W. Hawkins. The restoration of the *Presentation* mosaic was completed in September 1973. The mosaic was acquired by the Istanbul Archaeological Museum and placed on public display in the "50th Anniversary Exhibition."

*Presentation Mosaic*

The extreme fragility of the *Presentation* mosaic following its discovery required corresponding precaution in its handling. The mosaic was superficially cleaned, and the areas of complete loss provisionally filled.[11] The face was then covered successively with rice paper and fiberglass net affixed with polyvinyl acetate; next with a heavy layer of plaster of paris reinforced with a lattice of iron rods; and finally with a heavy wooden frame, which was bound to the under-support. Thus rigidly supported and secured, the mosaic could be turned face down for work on its back side.

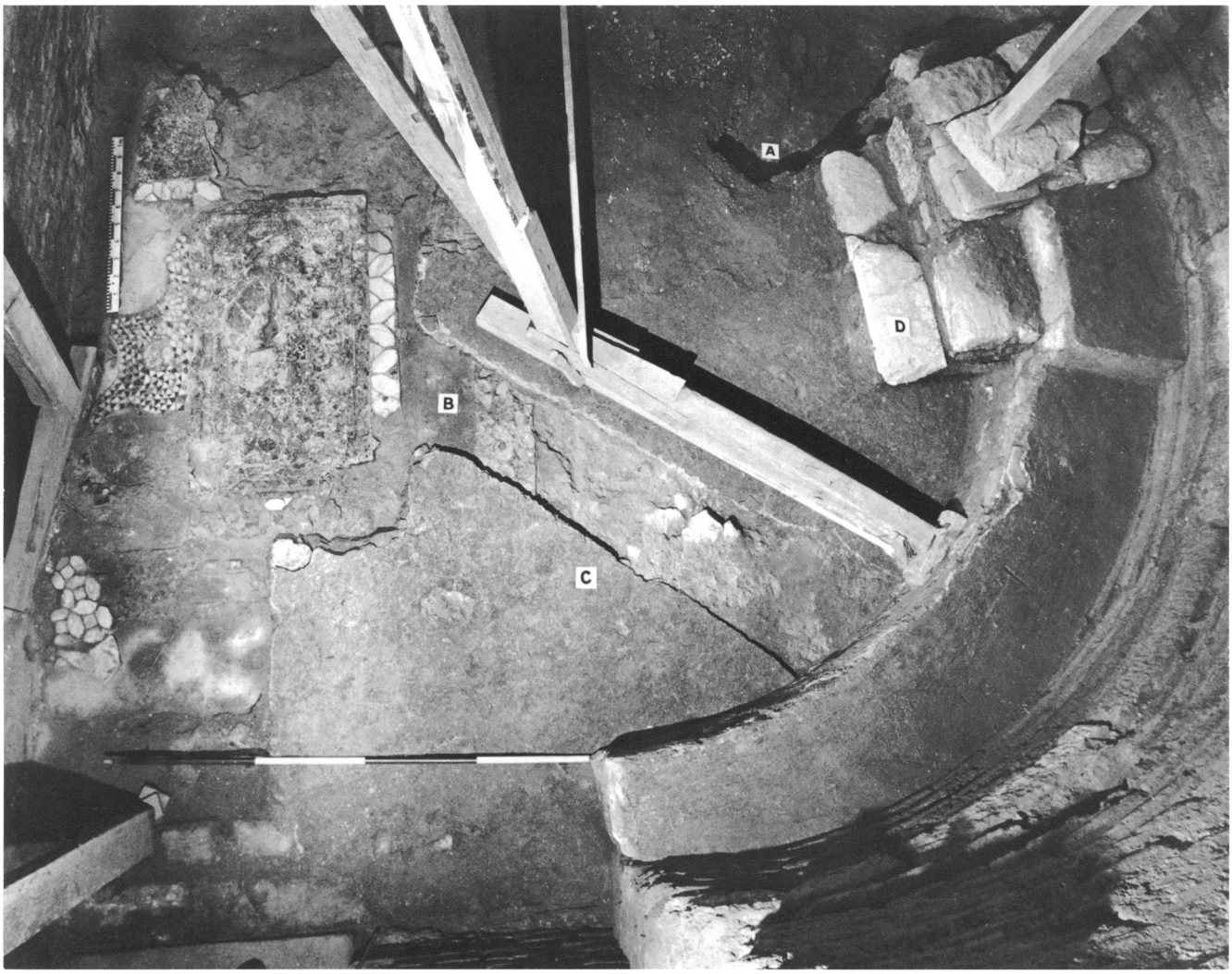
The provisional backing affixed at the time of discovery was removed, and the setting bed thinned to within 5–8 mm. of the tesserae (fig. 8). The thinning revealed a vertical joint in the bed between the Virgin and Child group and Simeon, corresponding to the position on the face of the vertical line formed by the fall of drapery below Simeon's left wrist (fig. 10).

The setting bed was impregnated with polyvinyl acetate and then permanently overlaid with fiberglass wool in a matrix of epoxy mixed with whiting, and reinforced by an aluminum lattice bolted to an aluminum frame (fig. 9).

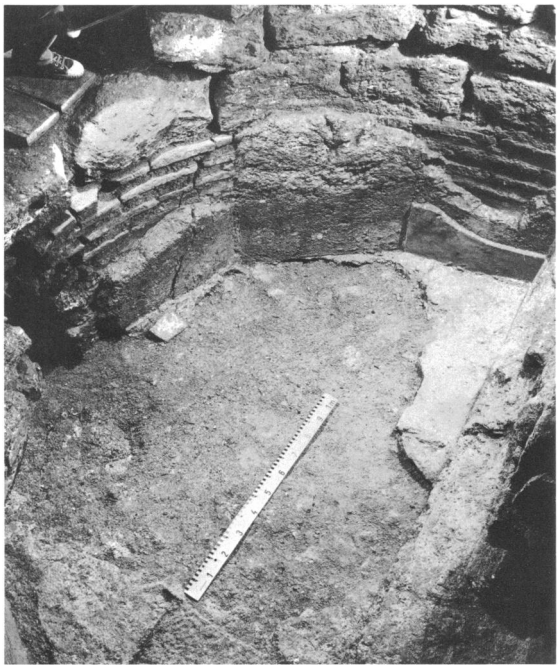
The mosaic was again turned face up and the packing removed. The areas of total loss were built up in gesso to form an even surface, and were in-painted in neutral stippling to harmonize and unify the composition (fig. 10). The tesserae were checked individually for bonding, and the mosaic surface given a final cleaning.

Even after this, there remained some areas of mosaic surface where the tesserae had

[11] Cf. Fourth Report, 256 and fig. 11.



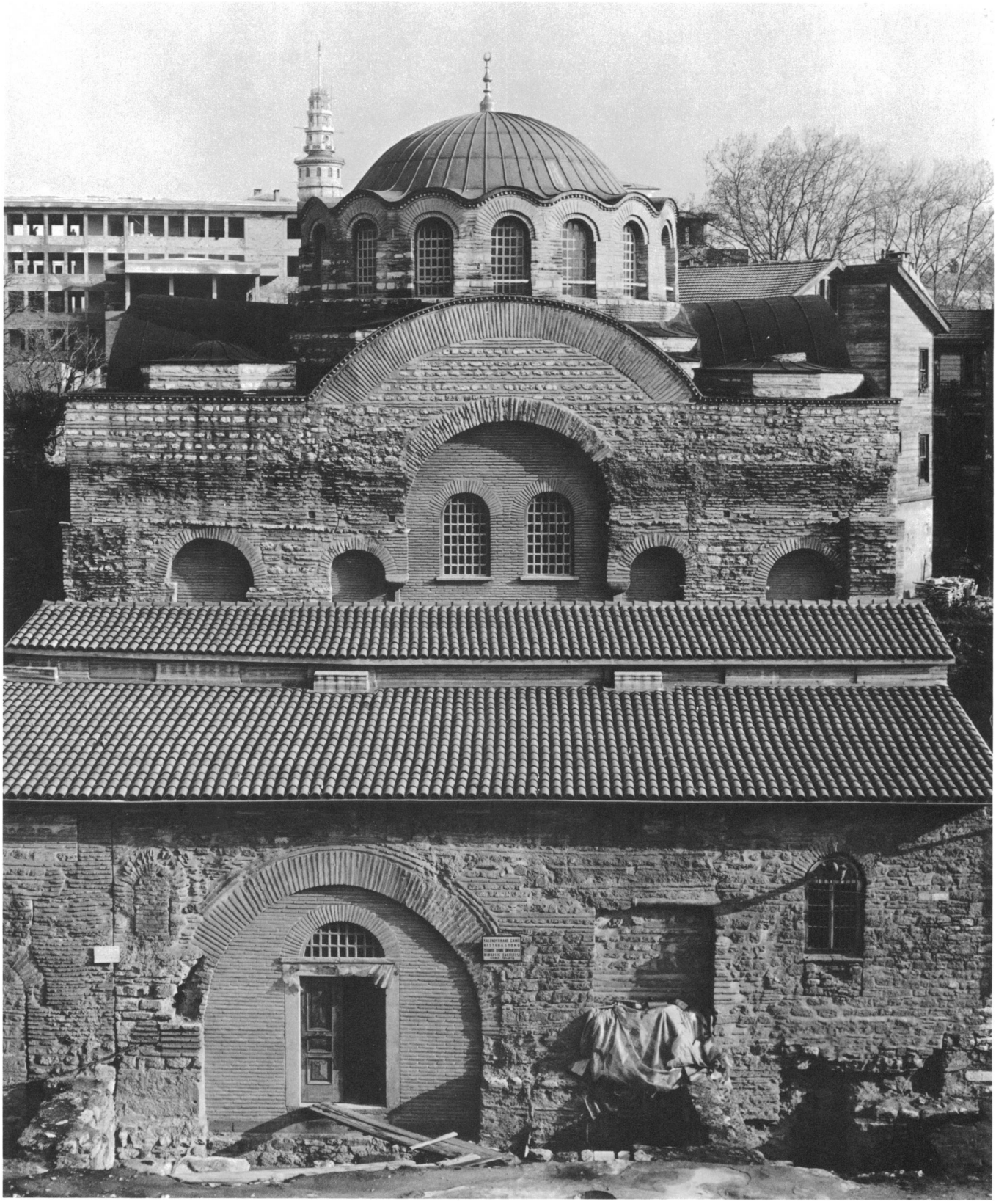

1. Early Byzantine Basilica, Apse Excavation (North at Top)



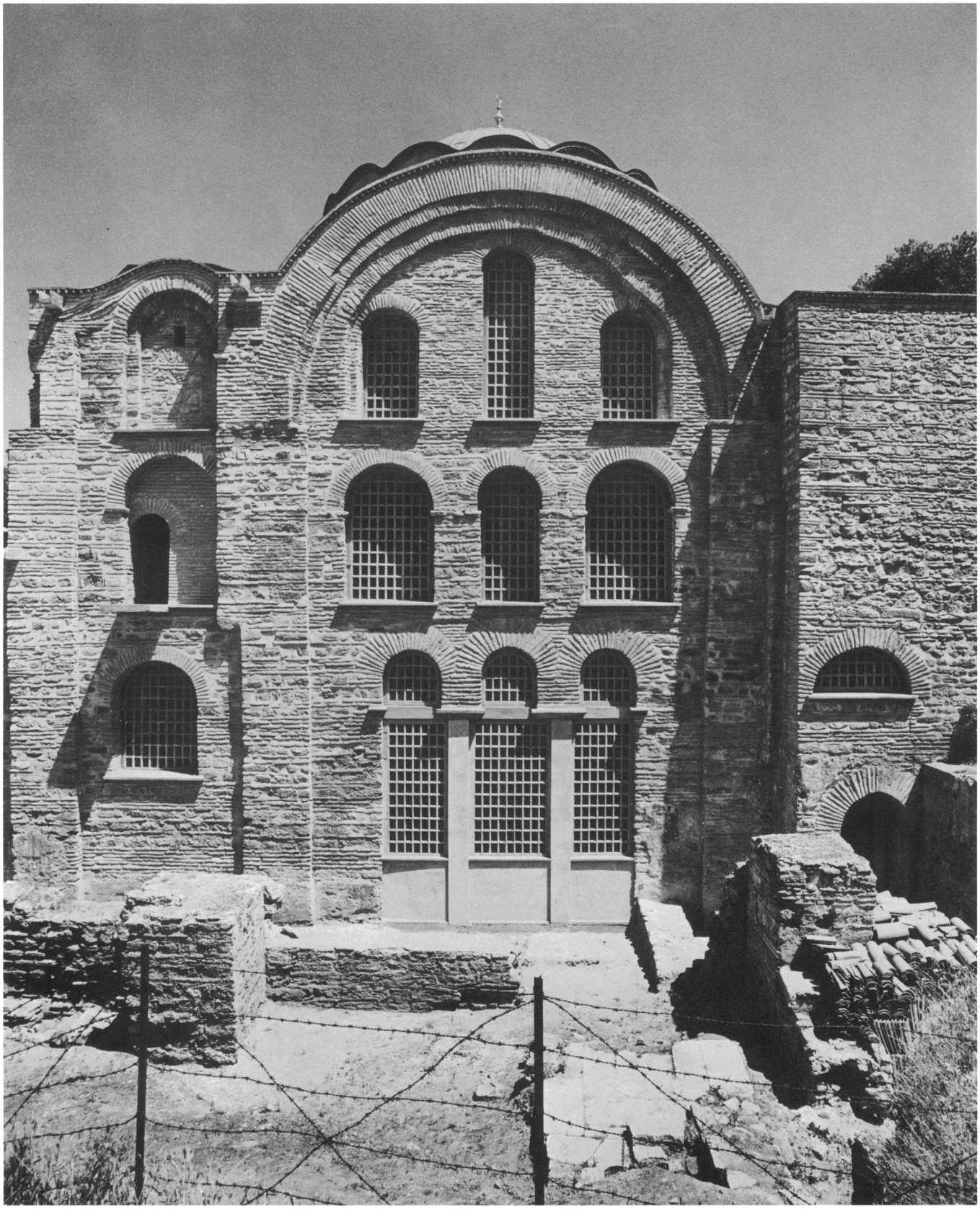
2. Southern Exonarthex, Basin, looking Northeast

3. Southeast Exterior Excavation, looking Southeast

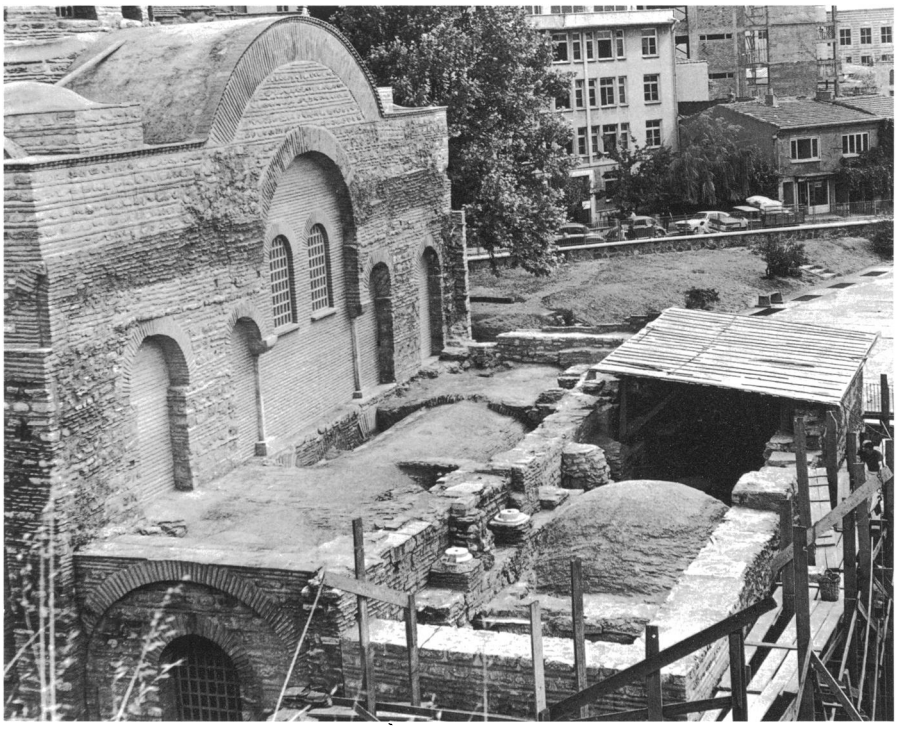
Istanbul, Kalenderhane Camii



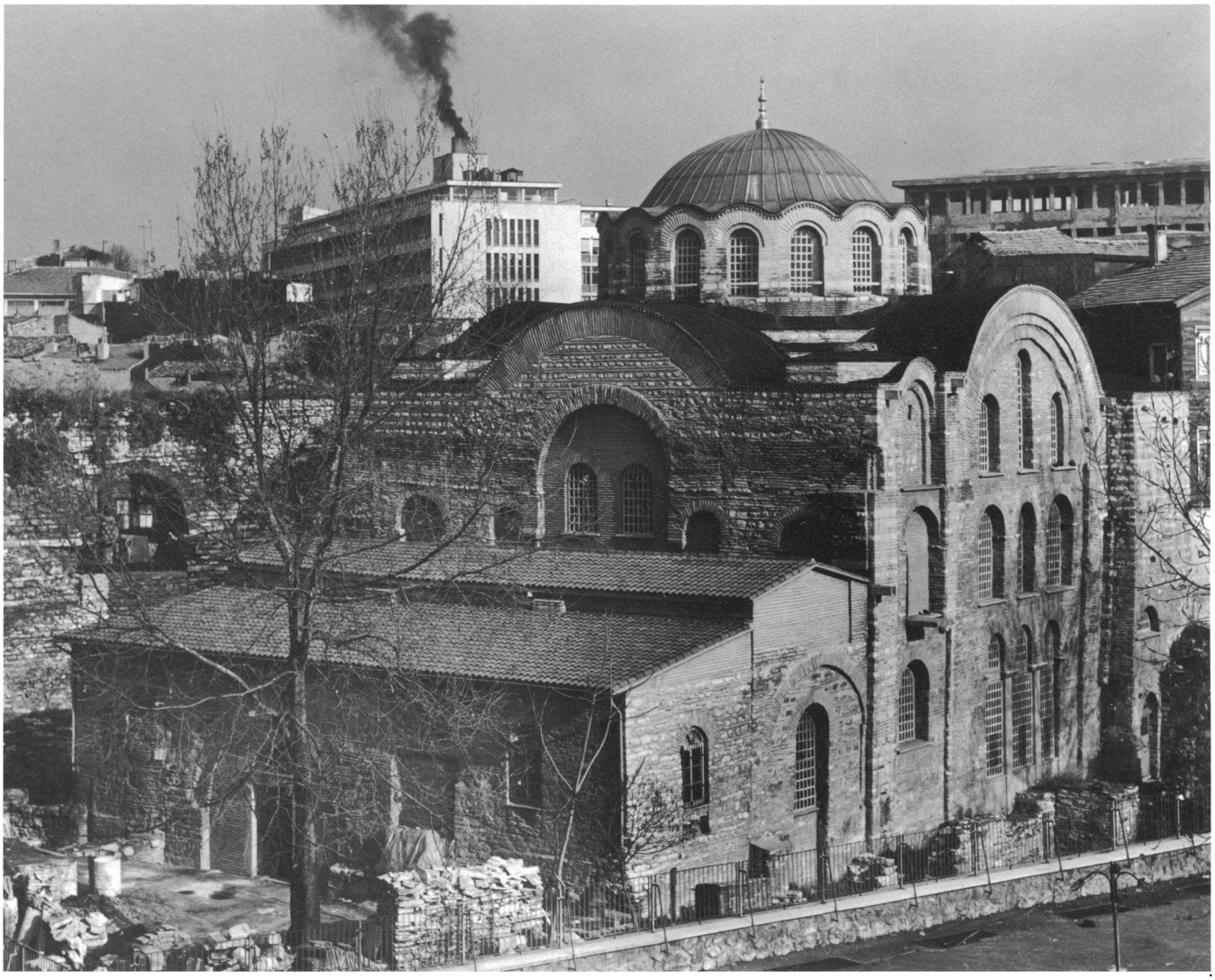
4. West Elevation (1974)



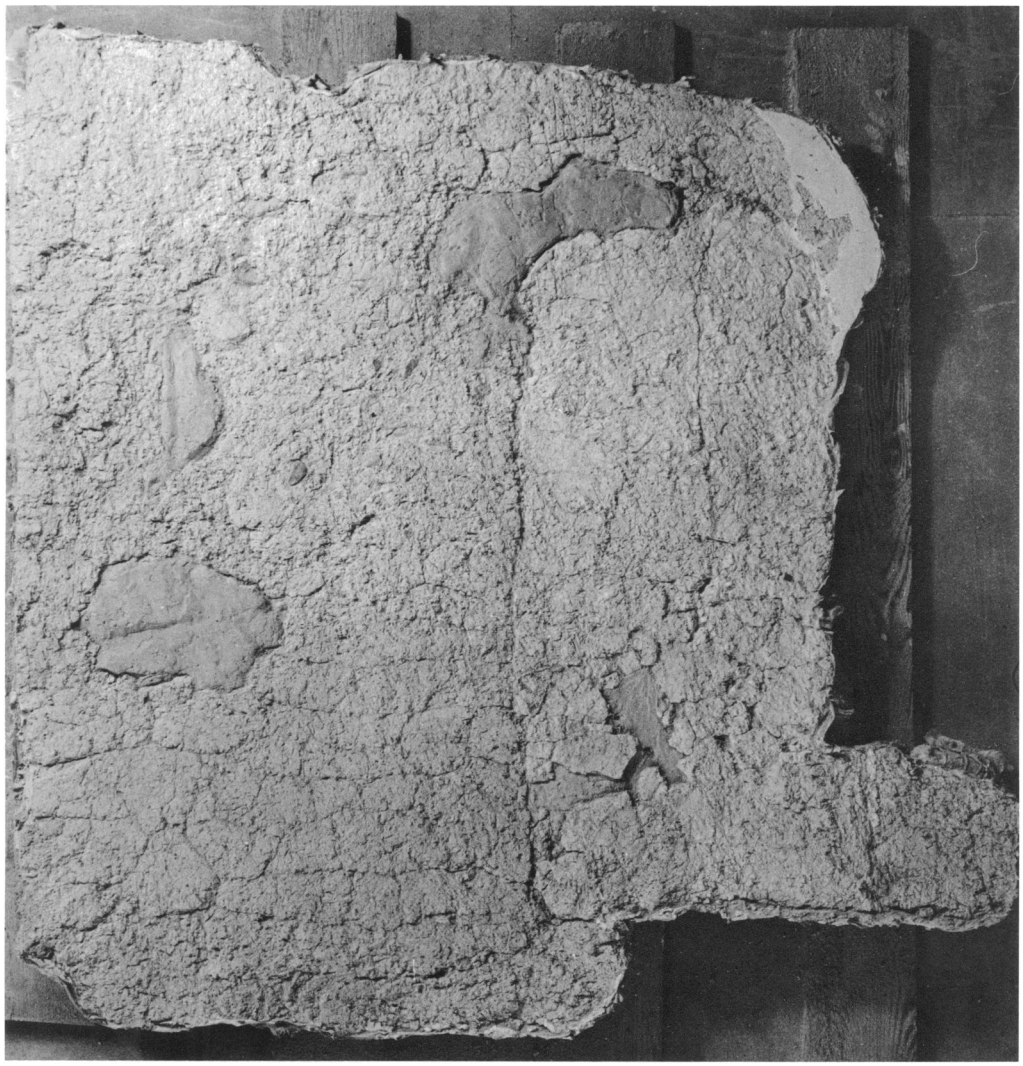
5. South Flank (1973)



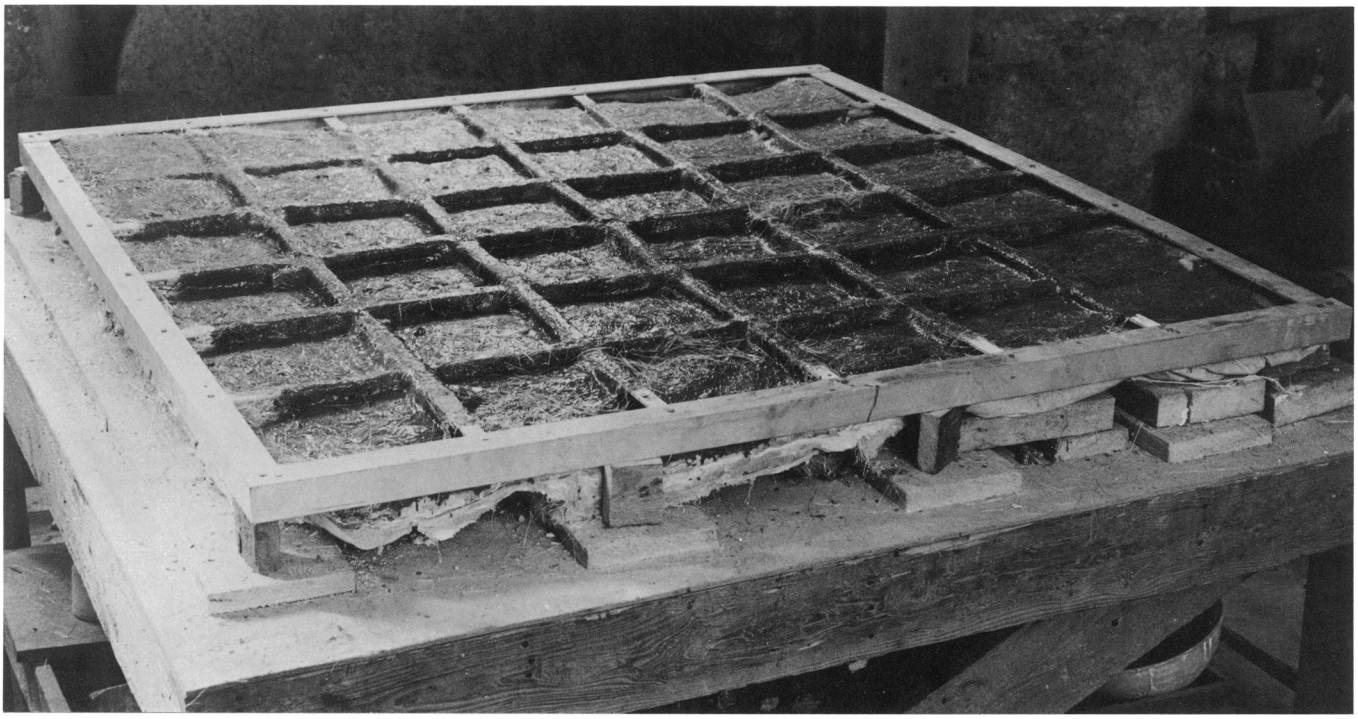
6. Narthex Roof Excavation, looking South



7. General View of Building from Southwest (1974)



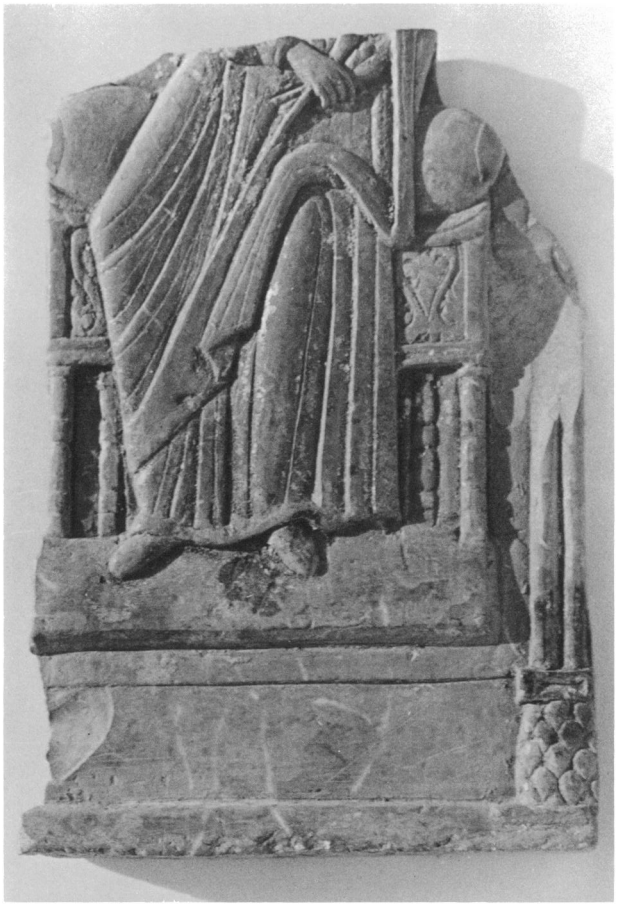
8. Back of Setting Bed



9. New Back Support

Mosaic of the Presentation in the Temple

10. Mosaic of the Presentation in the Temple, after Restoration

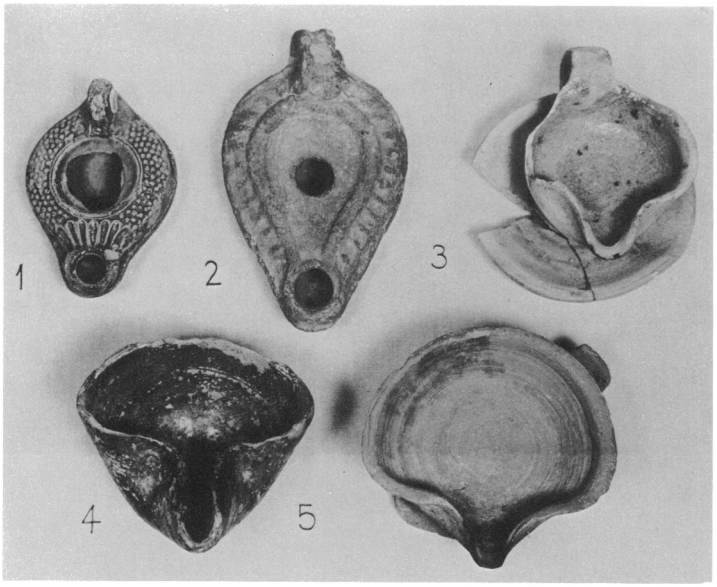


11. Steatite Icon Fragment of the Annunciation

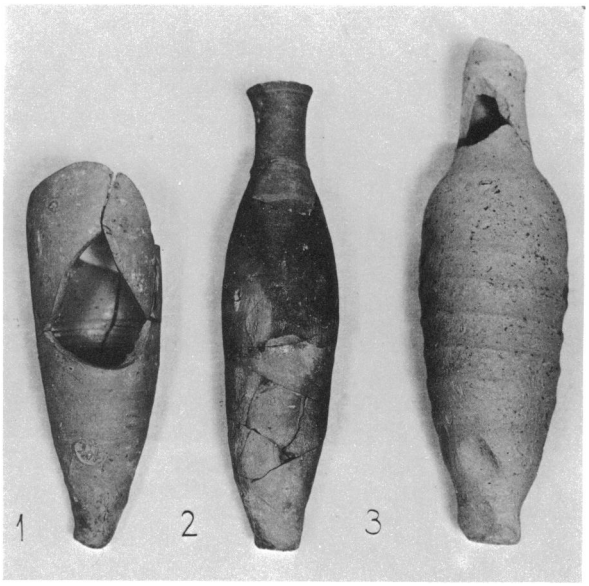
a. Front

b. Back

12. Sarcophagus Lid (?)

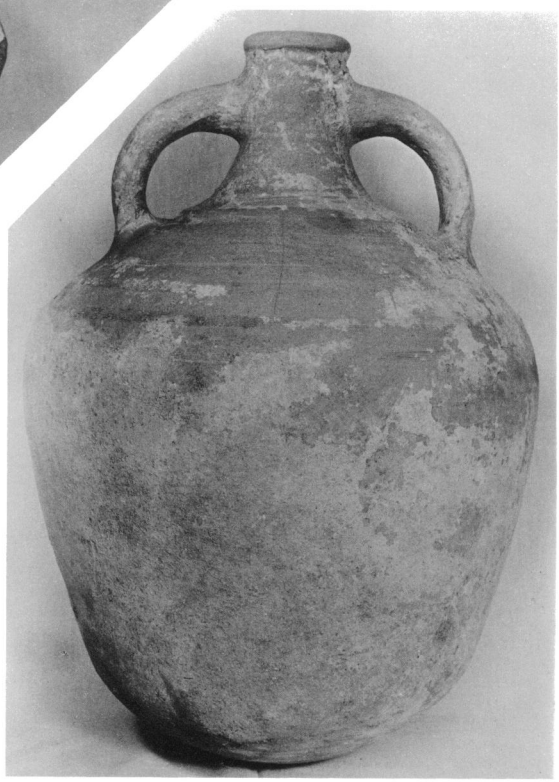



13. Late Roman and Byzantine Lamps (1:3)

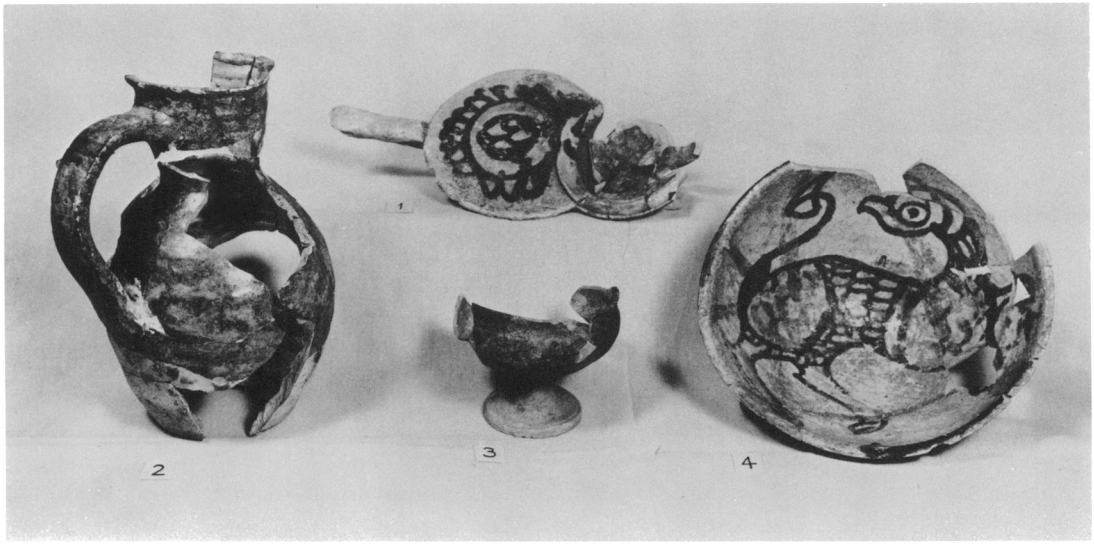



14. Unguentaria (1:3)


16. Eleventh- and Twelfth-century Wares (1:3)

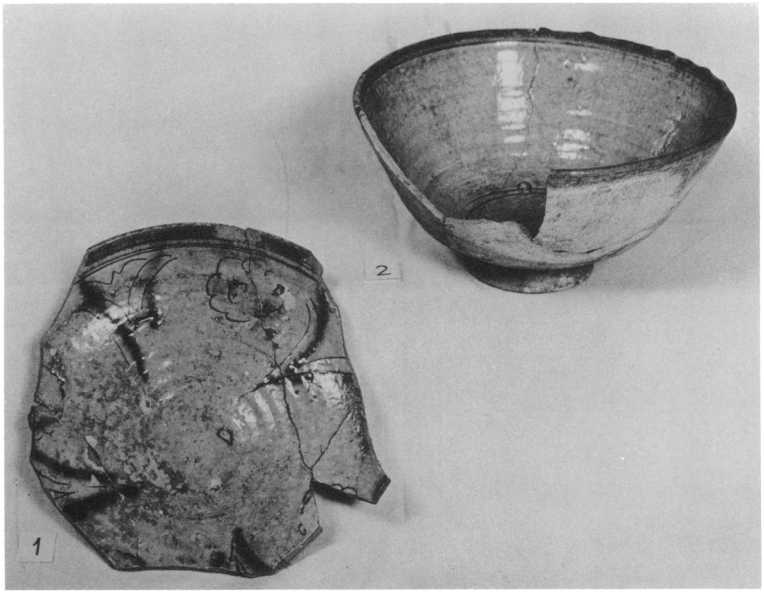


15. Two-handled Amphora (1:6)




17. Late Twelfth-century and Latin Context Wares (1:3)


18. Palaeologan Wares (1:3)




19. Transitional Sgraffito Wares (1:3)

20. Early Ottoman Wares (1:4)

21. Seventeenth-century Burnished Wares (1:3)

decomposed to such a degree as to confuse both reading and recording by color photography. To facilitate legibility of the mosaic in its final publication a color scale drawing of it was executed by Yücel Gürocak at a scale of 1:1. In most cases the original color of decomposed tesserae could be determined under high magnification and rendered accordingly in the survey.

*St. Francis Fresco Cycle*

Despite efforts to insulate the buried exterior of the St. Francis Chapel, a progressive bloom appeared on the surface of the frescoes remaining in situ. This, combined with the extreme difficulty that would have been encountered in an attempt to conserve in situ the fragments remaining on the semidome together with the areas of fresco assembled from excavated fragments, required the removal of those on the semidome.

A semidome armature of the same dimensions as the chapel was constructed of wood. On this was laid an underlayer of the same fiberglass-epoxy preparation used in the conservation of the *Presentation* mosaic. This was then rendered with a gesso surface to which the conserved fresco fragments could be attached.

The frescoes themselves were prepared for mounting by thinning their back sides to approximately 10 mm. from the surface. After impregnation with polyvinyl acetate, the back of each joined assembly of fragments was covered with a layer of the fiberglass-epoxy preparation, into which were set aluminum strips with projecting tabs. Each independently prepared assembly was then placed in correct position on the semidome armature surface and secured by bolts passing through tab and armature.

This provides a secure mount for the frescoes which can be rendered flush and inpainted in the surrounding areas of loss on the one hand, and allows at the same time for the repositioning of fragments should this at some future date become necessary in light of new evidence. The work of conservation and mounting is still in progress.

The further assembly of fragments excavated in 1967 permits several important revisions to be made in our initial comments on the cycle. In the lunette panel in the crown of the semidome the nimbed angel discovered in situ[12] was paired with a similar angel to the left. Between them, in the center of the lunette, was a bust figure of the Virgin and Child, significant portions of which could be reassembled.

The central element of the program was a standing frontal figure of St. Francis, extending from the top of the central window arch to the lunette in the crown of the semidome. This was proven by the assembly and identification of the central portion of this figure, which represents the Saint supporting an open book with his left hand, and with his right hand in the gesture of speaking. The large-scale fragment of a face,[13] initially thought to be from one of the flanking bishops, is now presumed to be from the St. Francis figure.

The central figure of the Saint was flanked by ten scenes from his life, five on a side, disposed in three registers as follows: one each in the upper register, three each in the middle register above the window arches, and one each in the spandrels to the west of the windows. The spandrels between the windows are presumed to be too small to have contained scenes.

From this it appears certain that the Kalenderhane cycle is a Crusader adaptation of the standard Dugento Italo-Byzantine icon retable, such as the Berlinghieri panel in Pescia, to the special circumstance of a preexisting semidome.

## CARVED STONE DECORATION

The excavations have yielded over a thousand pieces of carved stone decoration, mostly of marble, and consisting primarily of fragments of architectural decoration and furniture, with the expected range in date and type of ornament. Few can be securely dated from their discovery context. The material is still being catalogued and studied, but two noteworthy pieces are selected for publication here.

*Steatite Icon Fragment of Annunciation* (fig. 11).

*Description*: Light gray steatite with traces of gilding. Maximum height of fragment

[12] Cf. Second Report, fig. 27.
[13] Cf. Second Report, fig. 29.

10.4 cm. Estimated original dimensions, see comment below. Fractured on left side. Right side clean edge. Lower portion of Virgin seated on cushioned throne facing three-quarters left. Right hand crosses lap and holds distaff and two spindles. Throne rests on pedestal, is carried by turned legs, and has palmette decorated apron. Virgin is flanked to right by paired columns (from a baldachin) raised on pine-cone base topped by rectangular plinth.

*Comment*: The fragment is almost certainly from a greatly enlarged version of a steatite icon of the *Annunciation*, of the type excavated at Chersonese, now in the museum there,[14] to which it is intimately related in style, composition, and numerous details. Assuming the proportions of its format to have been similar to the Chersonese steatite, which measures 13.4 cm. in height by 10.7 in width, it would have measured in the range of 24 cm. in height by 19 in width, or almost twice the Chersonese size.

*Find Site*: Esonarthex north bay, under twelfth-century paving.

*Date*: Probably twelfth century.

*Sarcophagus Lid Fragment* (figs. 12a and b).

*Description*: White fine-grain marble slab; maximum height of fragment 1.16 m.; estimated original dimensions $1.82 \times 0.62$ m.; carved relief decoration on both faces; vertically oriented in same sense.

Front (top): Two medallions (originally doubtless three) set in guilloche frame. In lower medallion, rampant sphinx in left profile grasping acanthus fleur-de-lis in each hand. In upper medallion, frontal peacock, tail feathers extended, head (beak visible) in left profile. In left and right spandrels between medallions, vertical griffins in profile with feet to center; repeated in spandrels above upper medallion. Below lower medallion, central small medallion with inverted five-point star. In lower left spandrel, palmette. Outer rectangular frame, double molded, joins lower medallion frame with single guilloche twist; joins upper medallion with single pseudo-guilloche twist (space lacking). Medallion frame triple molded, with triple twist between medallions. Surfaces finely smoothed. Construction center points visible on left upper arm of sphinx and center of lower two twists between medallions.

Rear (underside): Cross raised on five-step pedestal, in low champlevé relief. Terminal of crossarm flared and continuous with surface of lateral frame. Cross simply drawn and crudely cut. Surfaces unfinished: chisel marks on recessed field; quarry marks on raised field (e.g., below cross, vertical saw marks and lewis hole).

*Comment*: The slab is here identified as a sarcophagus lid. The evidence in favor of this is its dimensions, the disparity in finish between what would have been its visible and hidden faces, the working of the decoration and frame of the underside so as to reserve a tight-fitting, continuous raised surface, and the lack of an alternative function which explains all features of the slab. That slabs of this type were made for this purpose, among possible others, seems confirmed by the existence of a double sarcophagus lid of similar design, subject matter, and proportion (considering only half) seen by Rott in situ in a vaulted tomb at the church of St. Nicholas at Myra.[15]

The slab is also closely related in type, style, and subject matter to a vertical slab with finished decoration on both faces in the British Museum, which may have come from Miafarqin (now Silvan). Dalton's suggestion that the slab may have been a window dado is reasonable in view of the finished decoration on both faces. This would suggest that

[14] Illustrated and described in A. Banck, *Byzantine Art in the Collections of the USSR* (Leningrad, 1966), no. 154, pp. 304 and 356. See also *idem*, "Les Stéatites, essai de classification, méthodes des recherches," *CorsiRav*, 17 (1970), 355–81.

[15] H. Rott, *Kleinasiatische Denkmäler* (Leipzig, 1908), 339–40 and fig. 128. The present whereabouts of the Myra slab is unknown. U. Peschlow kindly called the Rott reference to our attention.

The assertion by T. Ulbert, *Studien zur dekorativen Reliefplastik des östlichen Mittelmeerraumes* (Munich, 1969), catalog, p. 62, no. 82, that the Myra slab is a reused screen, is made without justification, and seems unlikely given its unusual proportions and the testimony of Rott.

slabs of this type were fashioned for various purposes.[16]

*Find Site*: Reused as step tread in secondary door cut through south wall of exonarthex.

*Date*: An inscription in the Myra tomb dates the burial of its occupants to 1118. The contemporaneity of slab and inscription at Myra, asserted by Rott, cannot be assessed. The Kalenderhane slab bears some resemblances to the sculpture from the early tenth-century Theotokos church of Constantine Lips.[17] Decoration of the type found in the Kalenderhane slab appears to have a long history; and in the absence of a body of securely dated comparative material, a provisional date in the tenth or eleventh century is suggested.

## CERAMICS

Ayyüz Sabuncu submits the following preliminary report on the ceramic material:[18]

As might be expected from an urban site, the Kalenderhane excavations yielded a vast quantity of ceramic material (over 350,000 sherds, based on a rough box count). Of this, approximately two-thirds is Byzantine and one-third Ottoman, with a small selection of imported wares. The presence of numerous groups of ceramic material associated with structural phases and found together with coins has provided evidence for cross-dating the ceramic material and establishing the chronology of the site. A selection of representative material is presented here.

The larger concentrations of pottery begin with the Early Byzantine basilica and pre-Iconoclastic church phases (mid sixth-early eighth centuries) with a characteristic admixture in red fabric wares of darker, fine Late Roman type and lighter, coarser Early Byzantine type. Groups of unguentaria and closed-form lamps illustrate these two fabrics in similar forms (compare Late Roman, figs. 13.1 and 14.1–2, to Early Byzantine, figs. 13.2 and 14.3). A white fabric, usually in closed forms, commences in the seventh century.

From the contexts dating between the pre-Iconoclastic and Main Church phases (*ca.* late seventh-late twelfth centuries) is a noteworthy group of seven large amphorae, of two related types, recovered intact from the vault fill supporting the southeast gallery chamber (fig. 15). While generally dated to the eighth-early ninth century, their context suggests either that the type appears earlier, or that the gallery floor is a later insertion.

Good examples of well-known types from this intervening period were also recovered, including polychrome wares, an almost intact eleventh-century chafing dish (fig. 16.1), a Corinthian ware bowl (fig. 16.3), and a twelfth-century slip-painted jug (fig. 16.2). For the most part, these were found as survival pieces in later contexts.

Pottery from numerous contexts associated with the late twelfth-century reconstruction, and from one context associated with the subsequent occupation of the building by the Latin Crusaders, is of special interest, for it not only provides a range of material from the late twelfth-century phase, but indicates that some twelfth-century wares, such as white fabric, green glaze, or green and black painted wares, survive into the Latin period (compare censer from late twelfth-century context, fig. 17.1, to pieces from the same Latin context, fig. 17.2–4).

Noteworthy among the Palaeologan pieces are an unusually fine champlevé decorated bowl (fig. 18.1) and two bowls of pinkish fabric with typical decoration but unusual glaze (fig. 18.2–3). Several lesser known Palaeologan lamp types were also recovered (fig. 13.4–5).

A small group of fifteenth-century sgraffito ware, two of which are illustrated here (fig. 19.1–2), contains both Late Byzantine and early Ottoman features, and may mark the transition between these two manufactures.

[16] O. M. Dalton, "A Sculptured Marble Slab from Northern Mesopotamia," *Proceedings of the Society of Antiquaries of London*, Second Series, 32 (1919–20), 54–63. G. House kindly called our attention to the present whereabouts of the Miafarqin slab and to the Dalton reference.

[17] Cf. C. Mango and E. J. W. Hawkins, "Survey of Sculpture [Fenari Isa Camii]," *DOP*, 18 (1964), 304–9; and *idem*, "Additional Finds at Fenari Isa Camii," *DOP*, 22 (1968), 179–80.

[18] Revised and edited by C. L. Striker. The final report on the ceramics will include a contribution by Judith Herrin to the study of the Byzantine ceramics.

The special contribution of the site to the study of Ottoman ceramics rests on the great variety of coarse wares recovered either from dated contexts or in association with the better known fine wares.

From the sixteenth century, the most characteristic fabric is red, shown here in a typical green glazed jar (fig. 20.2), followed in frequency by buff, used in an unglazed jar (fig. 20.3), and then by a few highly fired gray fabric wares, exemplified by an unusual four-handled jar (fig. 20.1).

A selection of red burnished seventeenth-century wares (fig. 21.1–3), probably of Istanbul-Tophane manufacture, extends our information on the use of this fabric beyond the well-known smoking pipes found in profusion on the site.

A descriptive key to the illustrated ceramics follows. Letter codes refer to excavation context.

Figure 13: Late Roman and Byzantine Lamps

1. Lamp: complete except for fracture of center hole rim; overall impressed decoration; letter "kappa" incised on exterior in center of base; Late Roman ware; 6–7th cent. (ANM)
2. Lamp: complete; impressed decoration; buff fabric; Early Byzantine ware; 7th cent. (BIG)
3. Cup-and-saucer lamp: complete except for break in rims of cup and saucer; one handle; brownish-yellow glaze on cup interior; pink fabric; 12th cent. (BAU)
4. "Candlestick" lamp: cup complete, upper stump of handle and upper part of stick preserved; one handle; dull brown glazed overall; red fabric; second half 13th cent. (BDK)
5. Cup-and-saucer lamp: cup and stem complete, small part of saucer rim preserved; handleless; unglazed; red fabric; second half 13th cent. or 14th cent. (BBX)

Figure 14: Unguentaria

1. Lower body including truncated point preserved; stamped monogram on lower body near point; Late Roman ware; late 6th-early 7th cent. (AVC')
2. Complete profile; small part of body missing; Late Roman ware; 6th or 1st half 7th cent. (AUZ).
3. Complete except for rim and small part of neck; flat and wide-grooved ridged decoration all over body; buff highly micaceous fabric; Early Byzantine ware; first half 7th cent. (AVC')

Figure 15: Amphora

Two-handled; unglazed comb decoration; complete except for small hole at bottom; comb grooving confined to several bands on shoulder; buff fabric; 8th-early 9th cent. (AWY)

Figure 16: Eleventh- and Twelfth-century Wares

1. Chafing dish; two handles; profile complete; small part of rim, body, and burner missing; clover-leaf impression at inner center; dark green spattered glaze; white fabric; 11th cent. (ALA')
2. Jug: one handle; complete except for upper neck and rim and part of body; slip-painted; green glazed except for lower body; pink fabric; 12th cent. (AEK)
3. Plate: complete profile; parts of rim and body missing; Corinthian type; elaborate incised embroidery design through cream slip under glaze; red fabric; 12th cent. (AXW)

Figure 17: Late Twelfth-century and Latin Context Wares

1. Censer: complete profile; large part of rim and body of bowl missing; black and green painted decoration on upper surface of hand guard; pinkish-white fabric; late 12th cent. (ARW)
2. Jug: one handle; complete profile; parts of rim, neck, body, and base missing; plain green glaze over exterior except for lower body; white fabric; late 12th–early 13th cent. (AZO)
3. Goblet: complete profile; parts of rim and body missing; plain cream glaze interior; plain green glaze exterior down to foot; white fabric; late 12th–early 13th cent. (AZO)

4. Bowl: complete profile; small parts of rim and body missing; black and green painted griffin on interior; white fabric; late 12th–early 13th cent. (AZO)

Figure 18: Palaeologan Wares

1. Bowl: complete except for small parts of rim and body; incised champlevé decoration; green glaze exterior; light yellow glaze interior over cream slip decorated area; red fabric; late 13th cent. (BAK)
2. Bowl: complete profile; parts of rim and upper body missing; cream glaze with incised decoration in interior center; light red fabric; 14th cent. (AUO[3])
3. Bowl: complete profile; parts of rim and foot missing; incised interior decoration; cream glazed interior and upper part of exterior; 14th cent. (BDS)

Figure 19: Transitional Sgraffito Wares

1. Plate: complete profile; most of rim and part of upper body missing; light green interior glaze with added dark green over incised area; red fabric; 15th–early 16th cent. (BLP)
2. Bowl: complete profile; part of rim and body missing; orange interior glaze carried over rim exterior; incised design in interior center; pinkish-buff fabric; 15th–early 16th cent. (AAC)

Figure 20: Early Ottoman Wares

1. Jar: complete profile; part of body missing; four-handled; gray fabric; 16th cent. (ANQ)
2. Jar: complete except for part of one handle; two-handled; incised bands on exterior; exterior green glaze almost to base; red fabric; late 15th–early 16th cent. (AWZ)
3. Jug: complete; two-handled; buff fabric; 16th cent. (ANQ)

Figure 21: Seventeenth-century Red Burnished Wares

1. Jug: upper part only; complete except for parts of neck and rim; one handle; spouted; buff fabric (AAB[2])
2. Lid: complete; buff fabric (BEZ)
3. Dish: complete profile; part of rim, body, and base missing; roulette decorated exterior; buff fabric (AUV)

## COINS

Michael F. Hendy submits the following preliminary numismatic report:

The excavation has to date brought to light 1,477 Roman, Byzantine, and western medieval coins. These come mainly from single finds, but a fair number are from hoards or from concentrations of various kinds. All are of base metal: a normal feature of excavation material. Of the total, 682 are identifiable as to their issuer with some reasonable degree of assurance, and form a chronological range from Augustus (represented by a single, anomalous piece) to Manuel II, that is, from the first to the fifteenth century, with a clear concentration from the later fourth century onward.

All the coins have been not only identified and described, insofar as possible, but also weighed and measured, and the information has been transferred to a card index by order of finding. This latter has been duplicated and reshuffled so as to provide an index by findspot and stratum, and a select index of fully identifiable coins by reign and by denomination and chronological order within each reign. It is this last index that will form the basis of the final publication of the coins.

The coins should be of use not only for dating small finds and pottery but also, it is to be hoped, for dating the main constructional phases of the building and its complex, and a start has already been made on this with favorable and interesting results.

It is, however, as a body of numismatic material, when combined with that from the excavation of the church of St. Polyeuktos at Saraçhane, that the coins are of a wider interest, for these two bodies of material will be the first from controlled excavations within the capital to be in any way fully published. Even now it seems clear, for instance, that these two metropolitan series have in common a number of features that contrast with those characteristic of series from excavations outside the capital; in particular, that coins of the period *ca.* 641–*ca.* 829 are rela-

tively abundant here, which is the opposite of the case elsewhere.

This is the first real indication that a divergence existed between the circulating medium of the capital and that of most if not all of the provinces during this period, as had long been suspected. There are also some divergences between the two series from the capital, but with one exception—the extraordinary and as yet unexplained number of coins of the Emperors Nicephorus I–Theophilus (802–42) at St. Polyeuktos—these do not go beyond what might be expected from the different histories of the two buildings.

At Kalenderhane, the presence of a group of twenty-three coins, mostly single finds, of the types recently attributed to the Latin emperors (1204–61) is of exceptional numismatic interest and significance, given the existence of the St. Francis chapel and other known traces of Latin occupation and use of the church. Of twenty-one Latin coins with precisely identifiable find spots, twelve come from trenches on the south side of the church, and may therefore be considered to some degree associated with the St. Francis chapel. Of the total of twenty-three coins, no less than seventeen are of the rarer and probably later types D–T,[19] an unusually high and possibly significant proportion.

Other coins of particular interest are a group of thirty-two pieces of the Emperors Justinian II–Theodosius III (685–711) which have hitherto been largely absent from excavations; a copper tetarteron which may well prove to be of Alexius IV (1203–4); two billon (?) trachea of John V with John VI (1347–53); and a copper coin of Andronicus IV (1376–79).

The one hundred and nine Ottoman coins recovered from the site thus far will be treated by a specialist in the coinage of this period.

[19] M. F. Hendy, *Coinage and Money in the Byzantine Empire 1081–1261*, DOS, XII (Washington, D.C., 1969), 192–96 and 215–17.